GROZIN, B.D., otv.red.; DRAYGOR, D.A., zam.otv.red.; SAMOKHVALOV, Ya.A., red.toma; BRAUN, M.P., red.; FAYNERMAN, I.D., red.; KRAGEL'SKIY, I.V., red.; BARABASH, M.L., red. Prinimali uchastiye: VAYNBERG, D.V., prof.; PETRENKO, I.P., kand.tekhn.nauk; SINYAVSKAYA, M.D., inzh.; SHEVCHUK, V.A., kand.tekhn.nauk; SEMIROG-ORLIK, V.N., kand.tekhn.nauk; YANKEVICH, V.F., inzh.; GORB, M.L., kand.tekhn. nauk; RAKHLINA, N.P., tekhn.red.

[Increasing the wear-resistance and life of machinery] Povyshenie iznosostoikosti i sroka sluzhby mashin. Kiev, Izd-vo Akad.nauk USSR. Vol.2. 1960. 290 p. (MIRA 14:1)

1. Vsesoyuznoye nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. Kiyevskoye oblastnoye pravleniye. (Mechanical wear) (Machinery)

SHEVCHUK, V. G.

Physical Chemistry

Dissertation: "Study of Quaternary Systems Consisting of the Sulfates of Sodium, Ammonium, Zinc, and Water by Methods of Physicochemical Analysis." Cand Chem Sci, Inst of General and Inorganic Chemistry imeni N. S. Kurnakov, Acad Sci USSR, Oct-Dec 1953. (Vestnik Akademii Nauk, Mar 54)

SO: SUM 213, 20 Sept 1954

USSR.

Solubility diagram for the ternary system $(NH_4)_2SO_4$–$ZnSO_4$–H_2O at 35°. A. S. Karnaukhov and V. G. Shevchuk (K. D. Ushinskii State Pedagog. Inst., Yaroslavl). *Doklady Akad. Nauk S.S.S.R.* 90, 191–4(1953).—The ternary system $(NH_4)_2SO_4$–$ZnSO_4$–H_2O was studied at 35° by the isothermal method (cf. *C.A.* 48, 7414d). Equil. was reached after 18–20 hrs. after which time samples were taken for analysis. The soly. diagram of this system has 3 branches. The binary compd. $ZnSO_4.(NH_4)_2SO_4.6H_2O$ was isolated and its microstructure and *n* were detd.

J. Rovtar Leach

SHEVCHUK, V.G.

SHEVCHUK, V.G.

Physicochemical analysis of the ternary system Na_2SO_4 -- $(NH_4)_2SO_4$ -- H_2O. Soob.o nauch.rab.chl.VKHO no.2:42-45 '54. (MIRA 10:10)
(Sodium sulfates) (Ammonium sulfate) (Water)

SHEVCHUK, V.G.; LEPESHKOV, I.N.

Solubility isotherm of the quaternary system: Na_2SO_4 - $ZnSO_4$ - $(NH_4)_2$ - H_2O at 35°. Zhur.neorg.khim. 1 no.8:1888-1895 Ag '56. (MLRA 9:11)
(Sulfates)

5(4) SOV/153-58-2-5/30

AUTHORS: Shevchuk, V. G., Druzhinin, I. G.

TITLE: The Solubility of Salts in the System of $ZnSO_4$ - $(NH_4)_2SO_4$-H_2O at 35 and 50° (Rastvorimost' soley v sisteme $ZnSO_4$-$(NH_4)_2SO_4$-H_2O pri 35 i 50°)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 2, pp 25-30 (USSR)

ABSTRACT: Only few data on the common solubility of zinc and ammonium sulfates in water are available as yet (Refs 1-3). The study of this system within a wide temperature range is necessary for establishing the production of pure zinc sulfate from mother lyes of some waste matters of the halurgical industry. A comprehensive survey of the corresponding literature written since M. V. Lomonosov's time is given (Refs 4-7). The authors also give a study of the ternary system, as mentioned in the title. Then an experimental section follows. Table 1 and figure 1 show that the solubility isotherm of zinc and ammonium sulfate in water at 35° is characterized by three branches.- By adding small quantities of ammonium sulfate a double salt can be immediately obtained. For that reason, the authors could never

Card 1/3

obtain even one single element of the remainder of the curve branch concerned. Point 2 is eutonic. The branch from 3 to 16 corresponds to the crystallization of the compound:

$$ZnSO_4 \cdot (NH_4)_2SO_4 \cdot 6H_2O$$

Point 17 is eutonic too. Figure 2 and table 2 show that the temperature increase from 35° to 50° is favorable for the formation of double salt. The first branch of the curve from point 1 to 3 corresponds to the separation of $ZnSO_4 \cdot 6H_2O$. The branch of the double salt is somewhere between point 5 and 17. Points 5 and 18 are eutonic. By adding minimal quantities of zinc sulfate to the saturated solution of ammonium sulfate double salt is immediately obtained. In order to give a more complete characterization of the ternary system its solid phases were examined by physico-chemical analysis. The results obtained confirm as a whole the documentary data mentioned in references (Fig 3)(Table3). Moreover, the thermogram of the double salt concerned has been also deciphered. (Fig 4).

The Solubility of Salts in the System of $ZnSO_4$-$(NH_4)_2SO_4$-H_2O at 35 and 50°

SOV/153-58-2-5/30

There are 4 figures, 3 tables, and 12 references, 7 of which are Soviet.

ASSOCIATION: Yaroslavskiy pedagogicheskiy institut
(Yaroslavl' Institute of Pedagogy).
Kafedra khimii
(Chair of Chemistry)

SUBMITTED: September 10, 1957

Card 3/3

SHEVCHUK, V.G.

Equilibrium in the systems Li_2SO_4 - $MgSo_4$ - H_2O, Rb_2SO - $MgSo_4$ - H_2O at 35°. Zhur.neorg.khim. 6 no.8:1955-1958 Ag '61. (MIRA 14:8)

1. Poltavskiy institut inzhenerov sel'skokhozystvennogo stroitel'stva.
(Systems (Chemistry))

SHEVCHUK, V.G.

Solubility in the system Li_2SO_4 - Rb_2SO_4 - H_2O at 35°C.
Zhur.neorg.khim. 7 no.10:2463-2465 O '62. (MIRA 15:10)

1. Poltavskiy inzhenerno-stroitel'nyy institut, kafedra khimii.
(Alkali metal sulfates) (Solubility)

SHEVCHUK, V.G.; KOST', L.L.

Equilibria in the systems Cs_2SO_4 - $MgSO_4$ - H_2O and $(NH_4)_2SO_4$ - $MgSO_4$ - H_2O at 35°. Zhur. neorg. khim. 9 no.2: 432-436 F'64. (MIRA 17:2)

1. Poltavskiy inzhenerno-stroitel'nyy institut, kafedra khimii.

SHEVCHUK, V.G.; KOST', L.L.

System Li_2SO_4 - K_2SO_4 - $MgSO_4$ - H_2O at 35°C. Zhur. neorg. khim. 9 no.5:1242-1245 My '64. (MIRA 17:9)

1. Poltavskiy inzhenerno-stroitel'nyy institut.

SHEVCHUK, V.G.; AVERINA, R.A.

System lithium sulfate-beryllium sulfate-magnesium sulfate-water at 35 degrees Centigrade. Zhur. neorg. khim. 9 no.12:2764-2768 D '64. (MIRA 18:2)

1. Poltavskiy inzhenerno-stroitel'nyy institut, kafedra khimii.

SHEVCHUK, V.G.; VAYSFEL'D, M.I.

The system lithium chloride plus magnesium sulfate forms and is formed from lithium sulfate plus magnesium chloride at 35 degrees Centigrade. Zhur. neorg. khim. 9 no.12:2769-2774 D '64. (MIRA 18:2)

1. Poltavskiy inzhenerno-stroitel'nyy institut, kafedra khimii.

SHEVCHUK, V.G.

Some characteristics of the effect of adrenaline and insulin on the sugar level in the blood in animals of various ages. Vop. geron. i geriat. 4:247-249 '65. (MIRA 18:5)

1. Institut gerontologii AMN SSSR, Kiyev.

SHEVCHUK, V.G.

System Li_2SO_4 - Cs_2SO_4 - H_2O at 35°C. Zhur. neorg. khim. 10 no.9: 2167-2169 S '65. (MIRA 18:10)

1. Poltavskiy inzhenerno-stroitel'nyy institut, kafedra khimii.

SHEVCHUK, V.G.

System Li_2SO_4 - Cs_2SO_4 - $MgSO_4$ - H_2O at 35°C.

Zhur.neorg.khim. 10 no.12:2750-2752 D '65.

(MIRA 19:1)

1. Poltavskiy inzhenerno-stroitel'nyy institut, kafedra khimii.

SHEVCHUK, V.G.

System Cs_2SO_4 - Na_2SO_4 - H_2O at 35°C. Zhur.neorg.khim. 10 no.12:2819-2821 D '65. (MIRA 19:1)

1. Poltavskiy inzhenerno-stroitel'nyy institut, kafedra khimii.

SHEVCHUK, V.G.; AVERINA, R.A.

System Li_2SO_4 - $(NH_4)_2SO_4$ - $MgSO_4$ - H_2O at 25°C. Zhur.neorg.khim. 10 no.12:2824-2826 D '65. (MIRA 19:1)

1. Poltavskiy inzhenerno-stroitel'nyy institut, kafedra khimii.

SHEVCHUK, V.I.

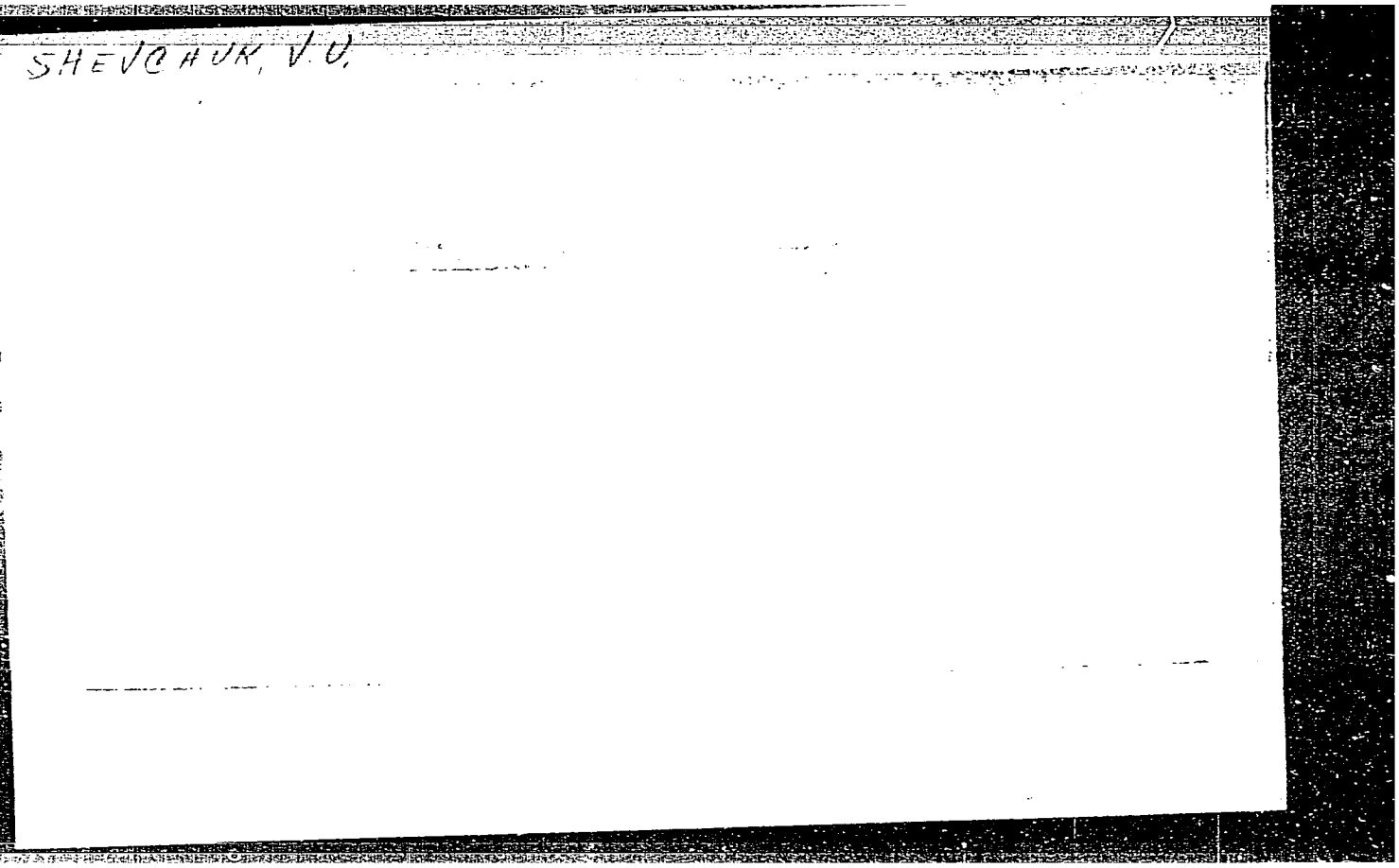
Remarks on semiautomatic relay block systems KB TsSH. Avtom., telem. i sviaz' 8 no.6:39-40 Je '64. (MIRA 17:6)

1. Nachal'nik Kulundinskoy distantsii signalizatsii i svyazi Zapadno-Sibirskoy dorogi.

STAL'MAKHOV, V.S.; SHEVCHUK, V.N.; ZHARKOV, Yu.D.

Analysis of the performance of a backward-wave tube in a cosinusoidally approximating field. Izv.vys.ucheb.zav.; radiofiz. 1 no.4:131-136 '58. (MIRA 12:5)

1. Saratovskiy gosudarstvennyy universitet.
(Traveling-wave tubes)



[illegible]

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66980
SOV/81-59-13-45165

5.3200

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 13, p 63 (USSR)

AUTHORS: Shevchuk, V.U., Strom, D.A., Zeliznyy, A.M.

TITLE: The Problem of the Role of a Solid Surface at the Oxidation Pyrolysis of Methane

PERIODICAL: Nauchn. zap. L'vovsk. politekhn. in-ta, 1958, Nr 50, pp 143 - 151

ABSTRACT: The dependence of the rate of oxidation pyrolysis of CH_4 in a mixture of 60% Dashava gas and 40% O_2 on the gas flow speed, the temperature, the partial hydrogen pressure and the wall surface value S has been investigated in a quartz pipe at 1,200 - 1,500°C and a pressure of 1 atm. It has been found that at 1,200 - 1,400°C the decomposition of CH_4 to C_2H_2 in the oxidation pyrolysis of CH_4 proceeds with the participation of a solid surface. The quote of this participation drops with an increase in the temperature. At 1,400°C the reaction proceeds completely in the homogeneous phase. O_2 introduced together with CH_4 forms CO_2, CO and H_2O, in which case the composition of the reaction products depends solely on the temperature, but not on S. Additions of H_2 decrease the rate of the oxidation pyrolysis of CH_4 at 1,200°C by 20%;

Card 1/2

66980
SOV/81-59-13-45165

The Problem of the Role of a Solid Surface at the Oxidation Pyrolysis of Methane

the first portions of H_2 adsorbed on the walls of the vessel act more vigorously than the following ones. The authors come to the conclusion of the double role of S: at small S the homogeneous decomposition of CH_4 prevails, an excessively developed S suppresses it. At the optimum value of S the rate of C_2H_2 formation can be increased and the temperature of the process decreased.

V. Vasserberg

Card 2/2

BALYTA, V.I.; ZELIZNYY, A.M.; ROMANYUK, I.M.; SHEVCHUK, V.U.

Layout of equipment for the production of acetylene by the oxidation pyrolysis of methane. Gaz.prom. 4 no.9:36-41 S '59 (MIRA 12:11)

(Acetylene) (Methane)

Shevchuk, V. U.

25(1)
5(1)

S/019/60/000/04/041/315
D038/D006

AUTHORS: Romanyuk, I.M., Balyta, V.I., Berkovich, V.B., Zalisnyy, A.M. Fesner, P.A. and Shevchuk, V.U.

TITLE: A Tunnel Type Reactor for Obtaining Acetylene by Incomplete Burning of Methane in Oxygen

PERIODICAL: Byulleten' izobreteniy, 1960, Nr 4, p 13 (USSR)

ABSTRACT: Class 12g, 3. Nr 126105 (627314/23 of 4 May 1959). The reactor has an annular torch with a conical nozzle, whose annular-space axis divides the tunnel radius into two halves. To intensify the process and eliminate soot formation in the reaction zone, the conical nozzle is fitted with blade impellers and a central annular duct for feeding oxygen in order to stabilise the burning.

Card 1/1

SHEVCHUK, V.U.

Effect of carbon monoxide on the reaction of the oxidative pyrolysis of methane. Gaz.prom. 5 no.8:44-47 Ag '60. (MIRA 13:10)
(Carbon monoxide) (Methane) (Pyrolysis)

80231
S/076/60/034/04/38/042
B010/B009

11.5000
11.1000

AUTHORS: Moin, F. B., Shevchuk, V. U.

TITLE: On the Influence of Temperature Conditions on the Velocity of Backfiring of Laminar Flames

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 4, pp. 932 - 934

TEXT: The influence of the temperature of the gas mixture and tube wall upon the backfiring velocity of laminar flames of a methane-oxygen mixture was investigated. For this purpose, quartz tubes (diameter 8 mm) as well as an apparatus consisting of a vertical burner (in a heater) and various meters were used. In the case of mixtures with down to 47% by volume of O_2 a distinct laminar backfiring was observed. With less than 47% by volume of O_2, backfiring was indistinct, with more than 50% by volume of O_2 it was turbulent. Highly concentrated gas mixtures (CH_4 51.2 and 50.0% by volume, O_2 47.0 and 48.0% by volume) were used. The measured values (Figs. 1-3) show that both in highly and weakly concentrated gas mixtures the backfiring velocity increases with the heating

Card 1/2

On the Influence of Temperature Conditions on the Velocity of Backfiring of Laminar Flames

temperature, while the tube wall temperature remains constant. The effect of the tube wall temperature varies, i.e., while the backfiring gradient is virtually independent in the case of high concentrations of the gas mixtures, it rises with the tube wall temperature in the case of weak concentrations of the gas mixtures. The authors agree with other authors (Ref. 3) in assuming that this difference is due to the different nature of the flash, i.e., to a thermal character in the case of weak concentrations, and a radical character in concentrated mixtures. The experiments will be continued. There are 3 figures and 3 references, 1 of which is Soviet.

SUBMITTED: August 3, 1959

34338
S/170/62/005/003/001/012
B154/B102

11.7200
AUTHORS: Moin, F. B., Shevchuk, V. U.

TITLE: Rate of passage of a laminar flame through hot methane-oxygen mixtures

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 5, no. 3, 1962, 10 - 14

TEXT: The effect of temperature on the velocity u_f of a flame and the rate w of laminar flame passage through methane-oxygen mixtures were investigated. The normal propagation rate of a flame was simultaneously determined for temperatures up to 400°C. If the value of $\ln \frac{T_B - T_o}{T - T_o}$ is assumed to be independent of u_f, then u_f and w are connected by the following (critical) equation:

$$Pe = k \cdot S^2$$

Card 1/4

Rate of passage of a laminar...

Pe = w·D/a; S = u_f·D/a; D-diameter of the burner; a-thermal diffusivity of gas; k-constant; T_B-temperature of the flame front; T_o-initial temperature; T-temperature in the origin of the hot zone. w was determined by measuring the gas consumption which decreases with approaching jump. For this purpose oxygen mixtures containing CH_4 between 8 and 57% and N between 0.5 and 3.3% were investigated in quartz tubes 8.5, 4.3, and 2.3 mm in diameter. u_f was determined with the burner method and direct photography. To get better results than in Ref. 4 (see below) the gas flow from the burner was formed to a flat cone. The apex angle β at the peak of the cone was measured and the value of u_f was calculated from $u_f = w\sin(\beta/2)$. The experimental results obtained for u_f show that an increase of temperature from 20 to 400°C causes an increase of u_f by 2.6 to 4.5 times. The influence of the CH_4 concentration on u_f can be seen in Fig. 2. The experimental results obtained for w show that for all mixtures investigated

Card 2/4

the gradient of the flame passage increases proportionally to or somewhat more slowly than u_f. If, however, the gas composition is changed at constant temperatures, then the rate of passage increases $\sim u_f^2$. This is explained by the fact that the thermal diffusivity is proportional to the absolute temperature and practically independent of the gas composition. A $Pe(S^2)$ plot of the results fits a straight line within experimental error limits. The linearity agrees well with the theoretical relation $Pe = k \cdot S^2$. Thus it is proved that for heated mixtures $\ln \frac{T_B - T_o}{T - T_o}$ changes only slightly up to 400 - 500°C. There are 4 figures, 2 tables, and 7 references: 2 Soviet and 5 non-Soviet. The three references to English-language publications read as follows: Ref. 1: Lewis B., Elbe G. J. Chem. Phys., 11, 75, 1943.; Ref. 4. Sholte and Vaags. Comb. and Flame, 3, 4, 1959.; Ref. 6. Stevens T. J. Amer. Chem. Soc., 48, 1896, 1926; 50, 3244, 1928.

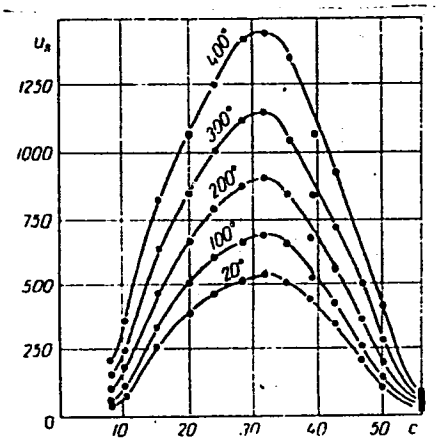
X

Rate of passage of a laminar...

SUBMITTED: July 10, 1961

Fig. 2. Propagation rate of the flame in methane-oxygen mixtures (cm/sec) at different temperatures as a function of the CH_4 concentration (%)

Fig. 2.



Card 4/4

SHEVCHUK, V.U.

Obtaining acetylene through the oxidation pyrolysis of methane-propane-butane mixtures. Gaz. prom. 7 no.3:36-41 '62. (MIRA 17:8)

KHITRIN, L. N.; MOIN, F. B.; SMIRNOV, B. B.; SHEVCHUK, V. U.

"Peculiarities of laminar and turbulent flame-backs."

report submitted to 10th Intl Symp on Combustion, Cambridge, UK, 17-21 Aug 64.

Inst Chemical Physics, AS USSR, Moscow.

KHITRIN, L.N.; MOIN, F. B.; SMIRNOV, B. B.; SHEVCHUK, V. U.

"Peculiarities of laminar and turbulent flame flashbacks."

report presented at the 10th Intl Combustion Symp, Cambridge, UK, 17-21 Aug 64.

Krzhizhanovskiy Inst of Power Engineering, Moscow.

L 20737-65 EPF(c)/EPR/EWP(j)/EWT(m) Pc-4/Pr-4/Ps-4/Pa-4 RPL/AS(mp)-2
R:/WW

ACCESSION NR: AP5001869 S/0286/64/000/023/0020/0020

AUTHORS: Shevchuk, V. U.; Fagarash, M. B.

TITLE: A method for obtaining chlorotrifluoroethylene. Class 12, No. 166674

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1964, 20

TOPIC TAGS: aliphatic compound, halogen compound, hydrocarbon, chlorotrifluoroethylene, chlorodifluoroethane, dichlorofluoromethane, pyrolysis, liquid oxygen, chromatography

ABSTRACT: This Author Certificate presents a method for obtaining chlorotrifluoroethylene from halogen derivatives of aliphatic hydrocarbons. The method involves cooling and collecting the condensed products of the reaction. To enlarge the assortment of raw materials, a mixture of chlorodifluoroethane and dichlorofluoromethane is used for halogen derivatives of aliphatic hydrocarbons. This mixture is pyrolized at a temperature of 900-1200C under a pressure of 0.1-1 atmosphere. The products of the reaction are then collected after being condensed in liquid oxygen and separated chromatographically.

ASSOCIATION: none

SUBMITTED: 30Aug63 ENCL: 00

SUB CODE: OC NR REF SOV: 000 OTHER: 000

Card 1/1

EPA, EPA(s) EWT(m)/EPF(c) EPR, EWP(j)/EWP(b) ASD

0170/64/000/004/0111/0113

ACCESSION NR: AP4038665

AUTHOR: Moin, F. B.; Shevchuk, V. U.

TITLE: Turbulent burning of mixtures of methane with oxygen

SOURCE: Inzhenerno-fizicheskiy zhurnal, no. 4, 1964, 111-113

TOPIC TAGS: combustion, methane, burning velocity

[illegible] turbulent burning velocities of different methane-oxygen mixtures were [illegible] of turbulence intensity and the diameter of the burner. The [illegible] with the diameters of [illegible] for indicating the turbu- [illegible] It is found that, for u' < 0.35 m/sec, the turbulent burning [illegible] is independent of the given three smallest burner diameters. The [illegible] increases as u' becomes larger (Fig. 1 of the Enclosure). Other re- sults are shown in Figures [illegible] of the Enclosure. All the experimental data fit the empirical formula

$$\frac{u_T}{u_\ell} = 1 + 13.5\left(\frac{u'}{u_\ell}\right)^{0.56}$$

1/4

L 1052-65
ACCESSION NR: AP4038665

where u_l is the laminar burning velocity. The formula is similar to the theoretical relation as given by B. Karlovitz et al. (J. Chem. Phys., 19, 541, 1951). The main difference between the two expressions exists in their pre-exponential factors, which depend on whether the turbulence is weak, as in this case of $u' < u_l$, or strong, as in the case treated by Karlovitz. Orig. art. has: 3 figures and 2 formulas.

ASSOCIATION: none

SUBMITTED: 22Apr63 ENCL: 02 SUB CODE: FP

NO REF SOV: 004 OTHER: 003

2/4

ACCESSION NR: AP[illegible]

Enclosure 01

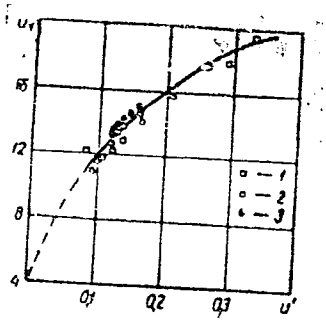


Fig. 1. Dependence of u_T (m/sec) on u' (m/sec) and the burner diameters of 6.4 (1), 8.8 (2), and 11.7 mm (3), for the mixture of 20% CH_4, 60% O_2, and 1% N_2

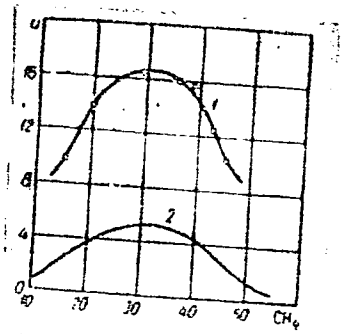


Fig. 2. The turbulent (1) and the laminar (2) burning velocity of methane-oxygen mixtures as a function of the CH_4 content, for u' = 0.2 m/sec.

Card 3/4

ACCESSION NR: AP4038665

Enclosure 02

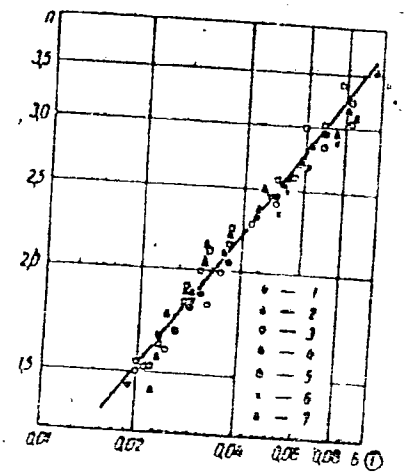


Fig. 3. Generalization of the dependence of u_T on u' and u_ℓ for mixtures of methane and oxygen, at different concentrations of CH_4 (in %): 1 - 15.2; 2 - 20.0; 3 - 30.2; 4 - 35.5; 5 - 39.0; 6 - 43.0; 7 - 45.5;

$$A = \frac{u_T}{u_\ell} - 1;$$

Legend 1: $B = \frac{u'}{u_\ell}$

Card 4/4

ROMANYUK, T.M.; ZELIZNYY, A.M.; SHEVCHUK, V.M.

Investigating incomplete burning in a twisted gas flow in a tunnel acetylene reactor. Gaz. prom. 9 no.10:34-40 '64.
(MIRA 17:12)

ZELIZNYY, A.M.; ROMANYUK, I.M.; SHEVCHUK, V.U.

Increasing the productivity of a single flow reactor of oxidative pyrolysis of methane. Khim. prom. 40 no.12:891-894 D '64.
(MIRA 18:2)

ABADZHEV, S.S.; SHEVCHUK, V.U.

Reaction kinetics of high-temperature acetylene conversion. Gaz. prom. 10 no.8:33-38 '65. (MIRA 18:9)

ROMANYUK, I.M., SHEVCHUK, V U.; ZELIZNYY, A.M.

Effect of the width of ignition on the process of thermooxidative pyrolysis of methane. Gaz. prom. 10 no.9:40-45 '65.
(MIRA 18:11)

ABADZHEV, S.S.; SHEVCHUK, V.D.

Kinetics of the thermal decomposition of vinyl-acetylene and diacetylene. Khim. prom. 41 no. 12:891-894 D '65
(MIRA 19:1)

ABADZHEV, S.S.; SHEVCHUK, V.U.

Determination of the kinetic parameters of reactions from experiments under anisothermal conditions. Zhur. fiz. khim. 39 no.8:2055-2057 Ag '65. (MIRA 18:9)

ACC NR: AP6033275 SOURCE CODE: UR/0020/66/170/004/0893/0896

AUTHOR: Sypyak, O. I.; Moin, F. B.; Shevchuk, V. U.

ORG: none

TITLE: Study of the homogeneous stages of gas-phase reactions in a stream of inert gas

SOURCE: AN SSSR. Doklady, v. 170, no. 4, 1966, 893-896

TOPIC TAGS: nuclear reactor component, reactor, gas phase reaction, ~~wall effect~~ nuclear reactor technology, inert gas

ABSTRACT: A method and apparatus have been developed for studying gas-phase reactions, under conditions of homogeneity, i.e., excluding the effect of reactor walls. The reaction is carried out in a stream of inert gas which prevents contact of the reagents with the vessel walls. The reaction zone is located in the initial diffusion region of two concentric streams: 1) a central stream of reagents; and 2) a stream of inert gas enveloping the central stream and having the same temperature and velocity. These conditions ensure the greatest possible length for the homogeneous-reaction zone. Figure 1 shows the experimental apparatus. Section 1 is a quartz tube 300 mm in diameter and 450 mm long, equipped with an external electric heater and filled with carbon packing (grain size, 1—1.5 mm). In this section, the inert gas (nitrogen) is heated to the reaction temperature. The heated nitrogen is fed to section 2 which is 45 mm in diameter and 270 mm in length and

UDC: 541.124/.125+541.127

Card 1/3

ACC NR: AP6033275

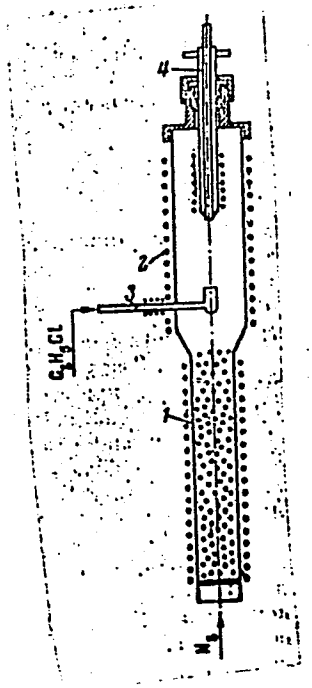


Fig. 1. Apparatus for study of homogeneous gas phase reactions

1 - Inert gas heating section; 2 - reaction section; 3 - capillary for heating of gas of interest; 4 - sampling tube.

Card 2/3

ACC NR: AP6033275

and is equipped with an electrical heater ensuring a uniform temperature field in the entire reaction zone. The gas of interest is fed through quartz capillary 3 having an inside diameter of 0.7 mm, entering the reaction zone, and equipped with an electric heater up to the point of entry into the reactor. The heating time of the gas of interest does not exceed 0.05 sec which is a tiny fraction of the time of residence of the reagents in the reaction zone. At the point of exit of the gas of interest, the capillary is provided with a cylindrical widening, situated in the axis of the reactor, which adjusts the velocity of the gas of interest to that of the inert gas. The reaction gases are chilled and samples for analysis are taken from water-cooled quartz sampling tube 4 located at the reactor exit. To compensate for heat losses in the reaction zone which are caused by the sampling-tube cooling, this tube is equipped with an external electrical heater. The length of the diffusion zone was determined by feeding hydrogen through the capillary. The end of the diffusion zone was taken as the point where the hydrogen concentration was 0.005 vol%; gas sampling was accomplished by a capillary 2 mm in diameter which was moved along the reactor wall. Since in the method described the reaction proceeds in a zone of varying reagent concentration, the applicability of the method is limited to first-order reactions whose rate constant is independent of concentration. The method was applied to the study of the thermal-decomposition kinetics of ethyl chloride at 630—715C and a gas velocity of 15—132 cm/sec. It is expected that the new method will find use in varied kinetic studies. This paper was presented by Academician V. N. Kondratev on 19 Jan 66. Orig. art. has: 3 figures and 1 table. [WA-68]

SUB CODE: 18, 20/ SUBM DATE: 29Dec65/ ORIG REF: 003/ OTH REF: 004/
Card 3/3

ACC NR: AP6033275 SOURCE CODE: UR/0020/66/170/004/0893/0896

AUTHOR: Sypyak, O. I.; Moin, F. B.; Shevchuk, V. U.

ORG: none

TITLE: Study of the homogeneous stages of gas-phase reactions in a stream of inert gas

SOURCE: AN SSSR. Doklady, v. 170, no. 4, 1966, 893-896

TOPIC TAGS: nuclear reactor, gas phase reaction, ~~wall effect~~ nuclear reactor technology, component, inert gas

ABSTRACT: A method and apparatus have been developed for studying gas-phase reactions, under conditions of homogeneity, i.e., excluding the effect of reactor walls. The reaction is carried out in a stream of inert gas which prevents contact of the reagents with the vessel walls. The reaction zone is located in the initial diffusion region of two concentric streams: 1) a central stream of reagents; and 2) a stream of inert gas enveloping the central stream and having the same temperature and velocity. These conditions ensure the greatest possible length for the homogeneous-reaction zone. Figure 1 shows the experimental apparatus. Section 1 is a quartz tube 300 mm in diameter and 450 mm long, equipped with an external electric heater and filled with carbon packing (grain size, 1—1.5 mm). In this section, the inert gas (nitrogen) is heated to the reaction temperature. The heated nitrogen is fed to section 2 which is 45 mm in diameter and 270 mm in length and

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ACC NR: AP6033275

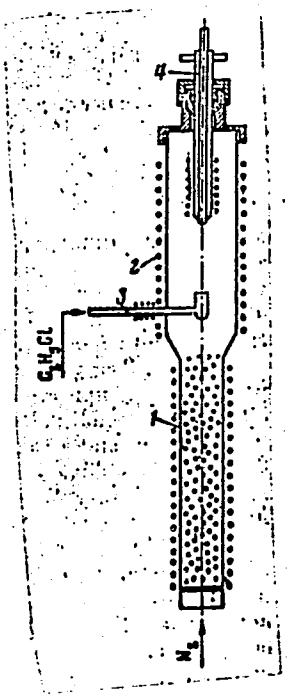

Fig. 1. Apparatus for study of homogeneous gas phase reactions

1 - Inert gas heating section; 2 - reaction section; 3 - capillary for heating of gas of interest; 4 - sampling tube.

Card 2/3

ACC NR: AP6033275

and is equipped with an electrical heater ensuring a uniform temperature field in the entire reaction zone. The gas of interest is fed through quartz capillary 3 having an inside diameter of 0.7 mm, entering the reaction zone, and equipped with an electric heater up to the point of entry into the reactor. The heating time of the gas of interest does not exceed 0.05 sec which is a tiny fraction of the time of residence of the reagents in the reaction zone. At the point of exit of the gas of interest, the capillary is provided with a cylindrical widening, situated in the axis of the reactor, which adjusts the velocity of the gas of interest to that of the inert gas. The reaction gases are chilled and samples for analysis are taken from water-cooled quartz sampling tube 4 located at the reactor exit. To compensate for heat losses in the reaction zone which are caused by the sampling-tube cooling, this tube is equipped with an external electrical heater. The length of the diffusion zone was determined by feeding hydrogen through the capillary. The end of the diffusion zone was taken as the point where the hydrogen concentration was 0.005 vol%; gas sampling was accomplished by a capillary 2 mm in diameter which was moved along the reactor wall. Since in the method described the reaction proceeds in a zone of varying reagent concentration, the applicability of the method is limited to first-order reactions whose rate constant is independent of concentration. The method was applied to the study of the thermal-decomposition kinetics of ethyl chloride at 630—715C and a gas velocity of 15—132 cm/sec. It is expected that the new method will find use in varied kinetic studies. This paper was presented by Academician V. N. Kondratev on 19 Jan 66. Orig. art. has: 3 figures and 1 table. [WA-68]

SUB CODE: 18, 20/ SUBM DATE: 29Dec65/ ORIG REF: 003/ OTH REF: 004/

Card 3/3

MATSKIN, L.A.; KOVALENKO, K.I.; BABUKOV, V.G.; KONSTANTINOV, N.N.; PONOMAREV, G.V.; PAL'CHIKOV, G.N.; PELENICHKO, L.G.; SHAMARDIN, V.M.; GLADKOV, A.A.; BRILLIANT, S.G.; SHEVCHUK, V.Ya.; SOSHCHEN-KO, Ye.M.; ALEKSANDROV, A.M.; BUNCHUK, V.A.; KRUPENIK, P.I.; MAYEVSKIY, V.Ya.; YELSHIN, K.V.; GAK, Kh.A.; POTAPOV, G.M.; KARDASH, I.M.; STEPURO, S.I.; KAPLAN, S.A.; SELIVANOV, T.I.; YEREMENKO, N.Ya.; ZHUZH, A.D.; USTINOV, A.A.; GIRKIN, G.M.; VOLOBUYEV, P.P.; CHERNYAK, I.L., nauchnyy red.; DESHALYT, M.G., vedushchiy red.; GENNAD'YEVA, I.M., tekhn.red.

[Combating losses of petroleum and petroleum products; materials of the All-Union Conference on Means of Combating Losses of Petroleum and Petroleum Products] Bor'ba s poteriami nefti i nefteproduktov; po materialam Vsesoiuznogo soveshchaniia po bor'be s poteriami nefti i nefteproduktov. Leningrad, Gos.nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1959. 157 p. (MIRA 13:2)

1. Nauchno-tekhnicheskoye obshchestvo neftyanoy i gazovoy promyshlennosti.
(Petroleum industry)

L 41416-65 EWT(l)/EPA(s)-2/ EWT(m)/EPF(c)/EPF(n)-2/EWG(m)/EWA(d)/EPR/T/
EWP(t)/EPA(bb)-2/EWP(b) Pr-4/Ps-4/Pt-10/Peb/Pu-4 IJP(c) JD/WW/JG
ACCESSION NR: AP5010469 UR/0294/65/003/002/0276/0284

80
78
B

AUTHOR: Labuntsov, D. A.; Shevchuk, Ye. N.; Pazyuk, P. A.

TITLE: Limiting levels of heat transfer and boiling of liquid metals

SOURCE: Teplofizika vysokikh temperatur, v. 3, no. 2, 1965, 276-284

TOPIC TAGS: heat transfer, liquid metal, sodium, potassium, mercury, magnesium, liquid metal boiling, heat transfer agent

ABSTRACT: Two mathematical models describing the heat transfer and boiling of liquid metals under different surface conditions are analyzed. The first model is based on the similarity in the boiling of liquid metals and common liquids, when the vapor-phase formation centers originate on the heating surface. It is shown that the highest heat-transfer level in liquid metals corresponds to vapor-phase formation conditions identical for both liquid metals and liquids. As the pressure decreases, formation of the vapor-phase on the heating surface becomes difficult, and the vapor-phase formation centers are located in the volume—the type of boiling described by the second model. In this case the number of active vapor-for-

Card 1/3

mation centers on the surface which is in contact with the liquid metal (not necessarily a heating surface) is limited only to the deep scratches, depressions, and protrusions on the metal surface. The second model permits the evaluation of the lower heat-transfer levels. The rate of growth of a vapor bubble calculated for Hg and Na by the proposed equation (based on Rayleigh's dynamic model) at pressures of 1.0 and 0.02 bar and a temperature difference $\Delta T = 50C$ compare favorably with previously published experimental data. The heat-transfer data for boiling Na-K alloy, Hg, Na, and Mg-Ti and Mg amalgams calculated by the proposed models is compared with graphs of previously published experimental data for the same liquid metal to confirm the proposed theory. The initial decrease in the heat transfer is determined by the properties of the heat-releasing surface. Heat transfer may be markedly improved by the addition of small amounts of surfactants. The boiling conditions and the heat transfer in liquid metals are sensitive to the surface microgeometry and physio-chemical conditions. The problem of the thermodynamic equilibrium on the liquid-vapor interface is discussed in an appendix. Orig. art. has: 5 figures and 20 formulas. [PS]

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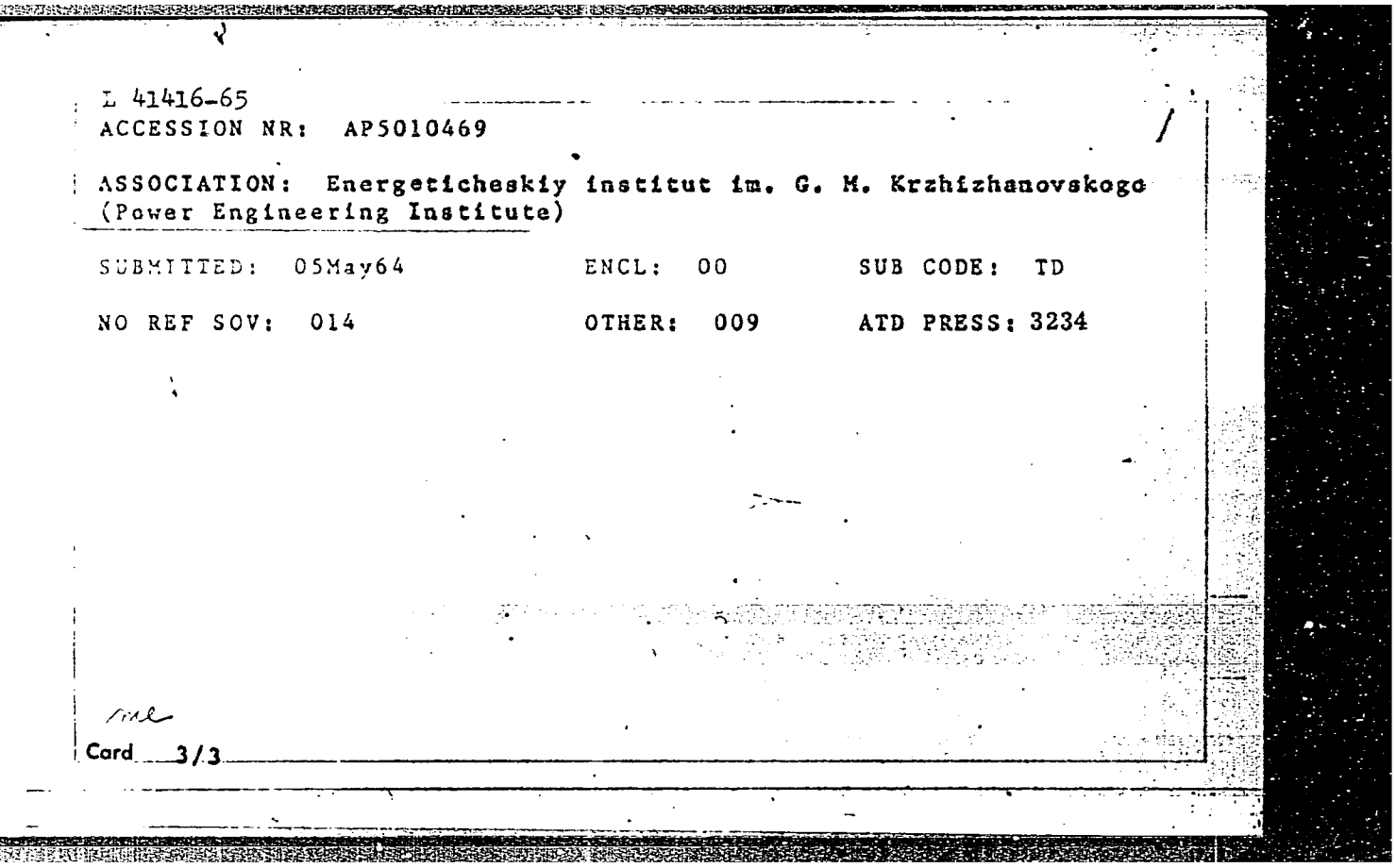


L 41416-65
ACCESSION NR: AP5010469

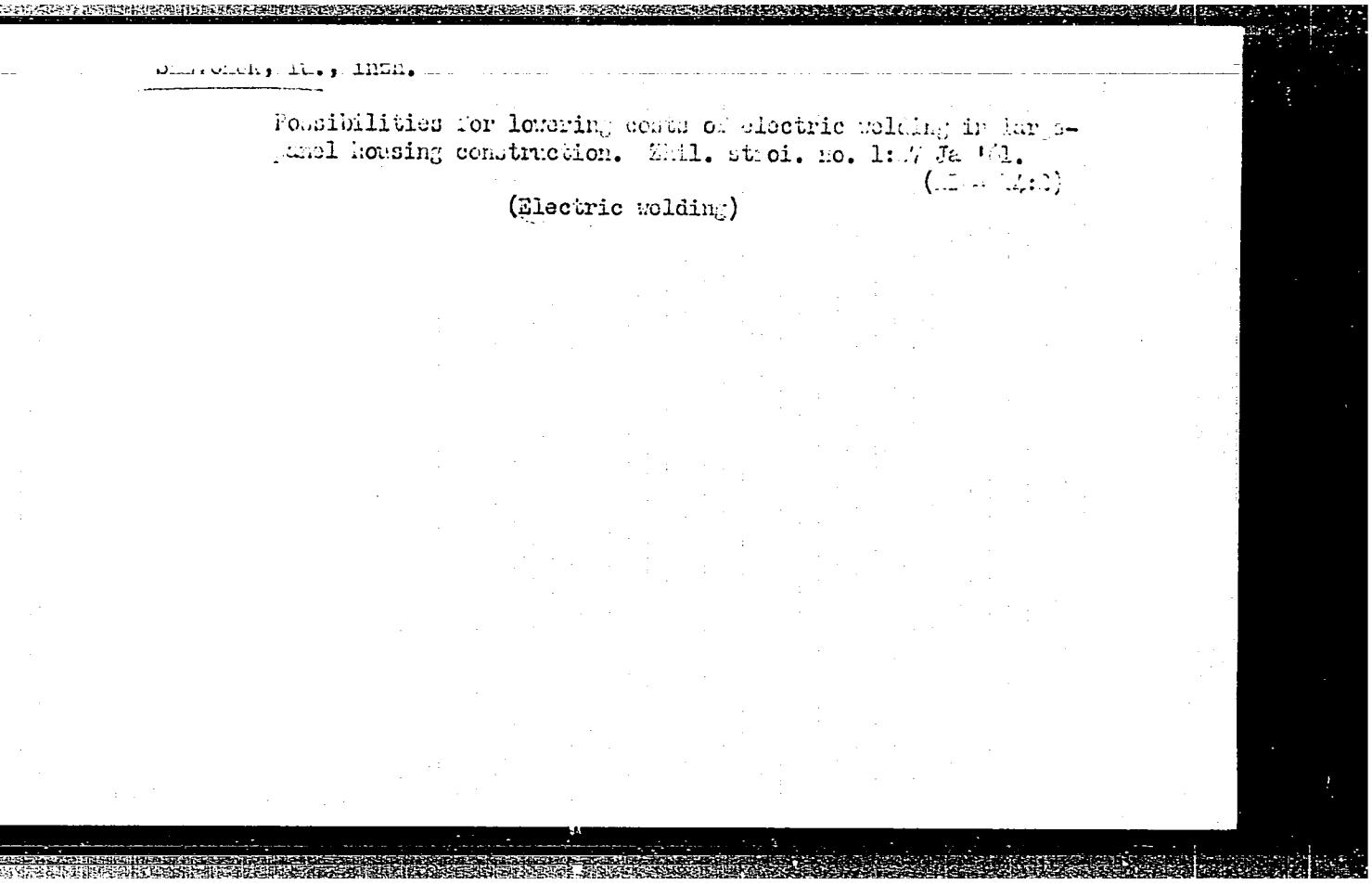
ASSOCIATION: Energeticheskiy institut im. G. M. Krzhizhanovskogo (Power Engineering Institute)

SUBMITTED: 05May64	ENCL: 00	SUB CODE: TD
NO REF SOV: 014	OTHER: 009	ATD PRESS: 3234

Card 3/3

SHEVCHUK, Yu.

Work organization in erecting large brick blocks. Zhil. stroi. no.2:13 '59. (MIRA 12:6)
(Building blocks)



[illegible], M., INSH.

Possibilities for lowering costs of electric welding in barrel housing construction. Mill. stroi. no. 1:7 Ja '41.
(MLRA 4:2)

(Electric welding)

SHEVCHUK, Yu., inzh.

Large-panel construction in Voroshilovsk. Zhil. stroi. no.12:22 '61. (MIRA 15:2)
(Voroshilovsk--Construction industry) (Apartment houses)

[redacted], M. T.

[redacted], I. I. and [redacted], M. T. "The PKM-5 and PKM-10 ropeways", Azerbaydzh. neft. khoz-vo, 1949, No. 12, p. 17-18.

So: U-3261, 1 April 53, (Letopis 'Zhurnal'nykh Statey, No. 12, 1949).

ZOLIN, Mikhail L'vovich; SHEVCHUK, Yuriy Ivanovich; AMIROV, A.D., redaktor; GONCHAROV, I.A., tekhnicheskiy redaktor

[Pumping jack beam hangers] Kanatnye podveski dlia stankov-kachalok. Baku, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, Azerbaidzhanskoe otd-nie, 1954. 34 p. [Microfilm] (MLRA 10:1)
(Oil well pumps)

Shevchuk

MIKHAYLOV, Konstantin Fedorovich; SHEVCHUK, Yu.I., redaktor; UDALYY, A.M., vedushchiy redaktor

[Deep oil well pump repair mechanic] Slesar' po remontu glubinnykh nasosov. Baku, Aznefteizdat, 1954. 166 p. [Microfilm] (MLRA 10:4)
(Oil well pumps--Repairing)

ABRAMOV, M.A.; ALIVERDIZADE, K.S.; AMIROV, Ye.M.; ARENSON, R.I.; ARSEN'YEV, S.I.; BAGDASAROV, R.M.; BAGDASAROV, G.A.; BADAMYANTS, A.A.; DANIYELYAN, G.N.; DZHAFAROV, A.A.; KAZAK, A.S.; KERCHENSKIY, M.M.; KONYUKHOV, S.I.; KRASNOBAYEV, A.V.; KURKOVSKIY, A.I.; LALAZAROV, G.S.; LARIONOV, Ye.P.; LISTENGARTEN, M.Ye.; LIVSHITS, B.L.; LISIKYAN, K.A.; LOGINOVSKIY, V.I.; LYSENKOVSKIY, P.S.; MOLCHANOV, G.V.; MAYDEL'MAN, N.M.; OKHON'KO, S.K.; ROMANIKHIN, V.A.; ROSIN, I.I.; RUSTAMOV, E.M.; SARKISOV, R.T.; SKRYPNIK, P.I.; SOBOLEV, N.A.; TARATUTA, R.N.; TVOROGOVA, L.M.; TER-GRIGORYAN, A.I.; USACHEV, V.I.; FAYN, B.P.; CHICHEROV, L.G.; SHAPIRO, Z.L.; SHEVCHUK, Yu.I.; TSUDIK, A.A.; ABUGOV, P.M., red.; MARTYNOVA, M.P., vedushchiy red.; DANIYELYAN, A.A.; TROFIMOV, A.V., tekhn.red.

[Oil field equipment; in six volumes] Neftianoe oborudovanie; v shesti tomakh. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry. Vol.3. [Petroleum production equipment] Oborudovanie i instrument dlia dobychi nefti. 1960. 183 p. (MIRA 13:4)

(Oil fields--Equipment and supplies)

KASPIN, L.A., kand.ekonom.nauk; PAL'M, I.S., starshiy nauchnyy sotrudnik; KHORIKOV, A.N., starshiy nauchnyy sotrudnik; SHEVCHUK, Yu.I., starshiy nauchnyy sotrudnik; AKSENOV, D.G., inzh.; EL'GORT, Ye.G. Prinimali uchastiye: KARAKURCHI, M.I., kand.tekhn.nauk; KUCHERENKO, K.R., kand.tekhn.nauk; PEDAN, M.P., nauch.sotr.; POPOV, V.Ye., nauchn.sotr.; GINZBURG, S.M., inzh.; SLIN'KO, B., red.; ZELENKOVA, Ye., tekhn.red.

[Economic aspects of the construction of four- and five-story apartment buildings of large blocks of brick] Ekonomika vozvedeniia 4-5 etazhnykh zhilykh zdanii iz krupnykh kirpichnykh blokov. Kiev, Gos.izd-vo lit-ry po stroit. i arkhit. USSR, 1960. 112 p. (MIRA 14:4)

1. Akademiya stroitel'stva i arkhitektury USSR. Institut organizatsii i mekhanizatsii stroitel'nogo proizvodstva. 2. Sektor ekonomiki stroitel'nogo proizvodstva Nauchno-issledovatel'skogo instituta organizatsii i mekhanizatsii stroitel'nogo proizvodstva Akademii stroitel'stva i arkhitektury USSR (for Kaspin, Pal'm, Khorikov, Shevchuk, Aksenov, El'gort). 3. Nauchno-issledovatel'skiy institut konstruktsiy (for Karakurchi, Kucherenko). 4. Glavkiyevstroy (for Ginzburg). 5. Nauchno-issledovatel'skiy institut stroitel'nykh materialov (for Pedan, Popov).

(Building, Brick)

SHEVDOV, P., inzh.

Efficient tools for finishing work. Stroitel' no.5:22 My '59. (MIRA 12:8)

(Building--Tools and implements)

SHEVEDEV, V. M.

Cand Tech Sci - (diss) "Study of the performance of arable aggregates on steep slopes." Moscow, 1961. 14 pp with diagrams; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Forestry Engineering Inst); 150 copies; price not given; (KL, 7-61 sup, 249)

SHEVEKHMAN, D.; CHURAZOVA, Ye.

Use of washing machines in the glue industry. Mias.ind.SSSR 32 no.2:44-45 '61. (MIRA 14:7)

1. Mogilevskiy kleyevoy zavod.
(Mogilev—Glue) (Washing machines)

YUDKOVSKIY, P.A.; BULANOV, V.Ya.; ZHURAVKOV, Yu.N.; SHEVEL', A.P.

Effect of heat treatment on the strength of drills. Stan. i instr. 34 no.12:27-28 D '63. (MIRA 17:11)

SHEVEL', B.G.

"Experience in the Clinical Use of Radioactive Phosphorus" p. 229, in the book Experience in the Use of Radioactive Isotopes in Medicine R. Ye. KAVETSKIY and I.T. SHEVCHENKO, publishing House of the UKRAINIAN SSR, KIEV 1955, represents medical transactions of a conference held in KIEV from 18-20 January 1954.

So: 1100235

USSR/Human and Animal Physiology (Normal and Pathological) T
The Effect of Physical Factors. Ionizing Irradiation

Abs Jour : Ref Zhur Biol., No 6, 1959, 27195

Author : Lerner, I.P., Shevel', B.G.

Inst : Kiev Institute for the Advanced Training of Physicians

Title : Case of Polycythemia , Complicated by Radiation Injury of Vessels.

Orig Pub : Sb. nauchn. rabot po radiol. i rentgenol. Kiyevsk. in-t usoversh. vrachey. Kiyev, 1957, 207-211

Abstract : No abstract.

Card 1/1

BUTAKOV, D.; BOCHKOVA, V.; SHEVEL', I.; CHIZHOV, K.Ya., otv.red.; ROSHCHINA, L., red.; TELEGINA, T., tekhn.red.

[Finances of the people's democracies] Finansy stran narodnoi demokratii. Moskva, Gosfinizdat, 1959. 343 p. (MIRA 13:3)

1. Nauchno-issledovatel'skiy finansovyy institut (for Butakov, Bochkova, Shevel').
(Finance)

BURLAKOV, M.; BUTAKOV, D.; SHKVEL', I.

General characteristics and special features of the development of the banking system in the people's democracies. Den. i kred. 17 no.9:34-45 S '59. (MIRA 12:12)
(Banks and banking)

SHEVEL', I.

Agricultural credit in the people's democracies. Den. i kred. 18 no.3: 43-55 Mr '60. (MIRA 13:2)

(Agricultural credit)

BOCHKOVA, V.; BUTAKOV, D.; BURLAKOV, M.; SHEVEL', I.; CHIZHOV, K.Ya.; ZABOROV, Ya., red. izd-va; POGODIN, Yu., red. izd-va; TELEGINA, T., tekhn. red.

[Banks and credit in the people's democracies] Banki i kredit v stranakh narodnoi demokratii. By V.I.Bochkova i dr. Moskva, Gosfinizdat, 1961. 323 p. (MIRA 14:11)
(Communist countries—Banks and banking)
(Communist countries—Credit)

SHEVEL', I.

Credits and free help in relations among the people's democracies. (MIRA 14:9)
Den. i kred. 19 no.9:61-72 S '61.
(Communist countries--Foreign economic relations)
(Communist countries--Credit)

SHEVEL', I.

Credits of the people's democracies to underdeveloped countries.
Den. i kred. 20 no.6:39-46 Je '62. (MIRA 15:6)
(Underdeveloped areas--Economic assistance)

SHEVEL', N.Z., uchitel'

Rabbit-raising section of a boarding school. Biol.v shkole no.3: 51-53 My-Je '59. (MIRA 12:9)

1. Srednyaya shkola-internat g.Novgorod-Severskiy Chernigovskoy oblasti.

(Rabbits)

SHEVEL', N.Z.

Experiments with rabbits. Politekh.obuch. no.11:42-43
N '59. (MIRA 13:2)

1. Novgorod-Severskaya srednyaya shkola-internat Chernigovskoy oblasti USSR.
(Novgorod-Severskiy--Rabbit breeding)

SHEVEL', N.Z., uchitel'

Experiments with rabbits in the school rabit farm. Biol.v shkole no.2:54-56 Mr-Ap '60. (MIRA 13:8)

1. Srednyaya shkola-internat goroda Novgorod-Severskogo, Chernigovskoy oblasti, USSR.
(Rabbits)

ACC NR: AR6033857 SOURCE CODE: UR/0196/66/000/008/V006/V006

AUTHOR: Shevel', S. S.; Dubrov, N. S.

TITLE: Instrument for the continuous measurement and adjustment of ultraviolet radiation intensity

SOURCE: Ref. zh. Elektrotekhnika i energetika, Abs. 8V26

REF SOURCE: Sb. Mekhaniz. i elektrifik. s. kh. Kiyev, Urozhay, 1965, 142-143

TOPIC TAGS: uv radiation, radiation intensity, uv radiation measurement, microammeter, photoresistor

ABSTRACT: The instrument for measuring and adjusting the radiation intensity of uv sources consists of an a-c generator (100 Kc), a differential measuring bridge, an indicator, a microammeter, a relay, pickups (diodes), and two photoresistors using light filters. A 4.5 v KBS-05 battery serves as the power source. The rectified voltage is transmitted through opposite connected diodes to the photoresistor in such a manner that current difference passes through the indicator. When the conductivity of the photoresistors is equal, the indicator has no current.

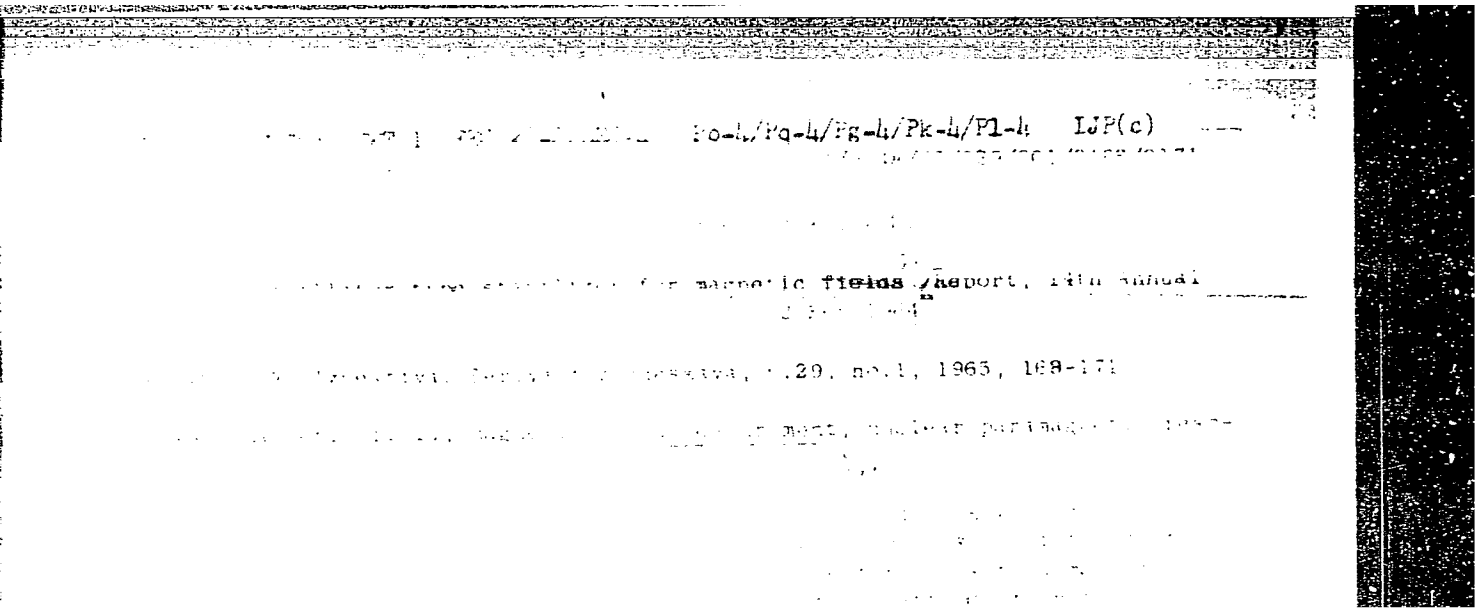
Card 1/2 UDC: 535.243

ACC NR: AR6033857

However, if one of the photoresistors is irradiated, its conductivity increases and a current proportionate to the radiant flux flows through the microammeter and the relay. When irradiation increases above a given value, the relay contacts used in the corresponding switching circuit operate and source voltage decreases. The instrument can also be used for measurements in the visible region of the spectrum. Suitable light filters are used for this purpose. One illustration. G. L'vina. [Translation of abstract]

SUB CODE: 09/

Card 2/2



GUREV, Grigoriy Abramovich; SHEVELEV, A., redaktor; IGNAT'YEVA, A., tekhnicheskiy redaktor.

[How the human race originated] Kak proizoshel chelovecheskii rod. [Moskva] Moskovskii rabochii, 1955. 102 p. (MLRA 8:11)
(Man--Origin)

SHEVELEV, A.

Some aspects of technical standardization in the simultaneous servicing of several machines. Sots.trud 4 no.9:74-79 S '59. (MIRA 13:1)
(Machinery industry--Production standards)

SHEVELEV, A., general-mayor tekhnicheskikh voysk.

Technical inspection of automobiles. Voen.vest. 36 no.4:37-39 Ap '56. (MLRA 9:8)

(Automobiles, Military--Inspection)

SHEVELEV, A., inzh.

Economic indices in constructing a large-block apartment house in Rostov-on-Don. Gor.i sel.stroi. no.8/9:23-24 Ag-S '57. (MIRA 10:12)

(Rostov-on-Don--Apartment houses) (Construction industry--Costs)

SHEVELEV, A., inzh.

Determining the technical readiness of a structure by standard labor expenditures. Stroitel' no.1:14 Ja '58. (MIRA 11:2)
(Building--Estimates)

SHEVELEV, A., inzh.

Determining the technical readiness of constructed buildings according to labor expenditures. Na stroi. Mosk. 1 no.8:24-25 Ag '58.
(MIRA 11:10)

(Building)

OBUKHOV, V., inzh.; SHEVELEV, A., inzh.

Adobe construction. Sel'. stroi. 12 no.2:5-8 F '58. (MIRA 11:2)
(Moscow Province—Building, Adobe)

SHEVELEV, A.

Improve the planning and accounting for labor productivity in rural construction. Sots. trud 6 no. 1:84-88 Ja '61. (MIRA 14:1)

(Farm buildings)
(Construction industry--Labor productivity)

SHEVELEV, A.A.

104-3-19/45

AUTHOR: Modylevskiy, D.N. and Shevelev, A.A., Engineers.

TITLE: The 30th Anniversary of the Shterovsk State Regional Power Station named after F.E. Dzerzhinskiy. (30-letiye Shterovskoy gosudarstvennoy rayonnoy elektrostantsii imeni F.E. Dzerzhinskogo)

PERIODICAL: "Elektricheskiye Stantsii" (Power Stations), 1957, Vol. 28, No.3, p. 60 (U.S.S.R.)

ABSTRACT: This note gives a brief account of the history of the station which was started in October, 1926, with a 20 MW set and which by 1931 was a station of 152 MW. The station was destroyed during the war. By 1944, three sets totalling 54 MW were running, by 1946 a further 10 MW had been added and since then the sets have been super-posed by back-pressure sets using steam conditions of 126 atm and 500 C. The successes of the station in respect of fuel economy and other matters are described.

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Card 1/1

PAVLOVSKIY, G.I., kand. tekhn. nauk.; SHEVELEV, A.A., inzh.

Temperature fields in flange couplings of turbines during initial heating. Energomashinostroenie 4 no.9:14-17 S '58. (MIRA 11:11)
(Steam turbines)

91-58-7-6/27

AUTHORS: Dutikov, S.S.; Shevelev, A.A.; Vaytsman, V.M., Engineers and Vnukov, A.K., Candidate of Technical Sciences

TITLE: Exchange of Experience(Obmen opytom). The Automated Operation of Mills(Avtomatizatsiya raboty mel'nits).

PERIODICAL: Energetik, 1958, Nr 7, pp 19-20 (USSR).

ABSTRACT: In 1957, 5 drum ball mills (4 mills of "Sh-16" type and 1 biconical mill of "ShK-25" type) were automated according to the design suggested by Yuzhnoye otdeleniye ORGRES (the "ORGRES" South Branch Office). The following equipment was utilized: electronic controllers of "ER-III" type on 2 mills and electomechanical direct feedback columns of the "Energodetal' " plant on 3 mills. Their structural details and operation are described. The first experimental service of this automated system proved its operational stability and wide control range, as well as easy maintenance. The various requirements to be met for automating mills, such as good dust system, continuous aeration etc. are

Card 1/2

outlined. The "dust level" automation of mills must guarantee a decrease in consumption of electric energy for the preparation of pulverized coal by 3 to 4 kwh per ton of milling. There are 2 diagrams.

1. Ball mills--Operation 2. Ball mills--Electronic controls

S/143/60/000/007/005/010
A189/A029

AUTHOR: Pavlovskiy, G.I., Candidate of Technical Sciences, Shevelev, A.A., Engineer

TITLE: Heating of Bodies With Regard to Thermal Stresses

PERIODICAL: Energetika, 1960, Vol 3, Nr 7, pp 81-87

TEXT: The heating and cooling process of bodies having a regular geometric shape is analyzed and the arising thermal stresses are calculated. General relations between the thermal stresses and the difference of temperatures are derived. The derived relations are applicable to calculations of thermal stresses in bodies of any shape with a sufficient accuracy for practical use. A method is given for determining the optimum cooling conditions of bodies whose permissible thermal stresses are known. There are 4 graphs and 3 Soviet references.

ASSOCIATION: Khar'kovskiy politekhnicheskiy institut imeni V.I. Lenina (Khar'kov Polytechnical Institute imeni V.I. Lenin);

Card 1/2

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Heating of Bodies With Regard to Thermal Stresses

Kafedra obshchey teplotekhniki (Department of General Heat Engineering)

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Additional Heating-Up as a Method of Eliminating Thermal Stresses in a Turbine Cylinder

ASSOCIATION: Khar'kovskiy politekhnicheskiy institut imeni V.I. Lenina (Khar'kov Polytechnical Institute imeni V.I. Lenin)

PRESENTED: Kafedra teplotekhniki (Department of Heat Engineering)

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Card 2/2

[illegible], [illegible]; [illegible], [illegible].

Temperature stresses in the flanged joints of steam turbines. Trudy LMI 29 no.2:187-193 '60. (MIRA 14:10)

(Steam turbines)
(Thermal stresses)